

SLP March 28<sup>th</sup>

PRELIMINARY ISSUE

Work Order ID 82146

March-23-12 9:06:21 AM

\*82146\*

Page 1

Item ID: D3778-3 Accept \*N900040100\* Setup Start \*NS1\*  
 Revision ID: PRELIM Rev. B Stop \*NS2\*  
 Item Name: Bracket  
 Start Date: 3/23/12 Start Qty: 1.00 \*1\* Cust Item ID:  
 Required Date: 3/27/12 Req'd Qty: 1.00 \*1\* Customer:  
 Reference:

Approvals: Process Plan: Date: Tooling: Date: Run Start \*NR1\*  
 QC: Date: SPC (Y/N): Date: Stop \*NR2\*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr D3778	Revision Nbr PB1								
100	FLOW WATER JET	0.00							
*100*									
Waterjet	Memo	0.00							
FLOW CNC Waterjet	1-Cut as per Dwg D3778								
6561.090	Dwg Rev: PB1								
	Prog Rev: PB1								
	****grain direction along 4.0" ****								
	2-Deburr if necessary								
110	QC2- Inspect parts off machine FAI/FAIB	0.00							
*110*									
QC	Memo	0.00							
Quality Control									

B12-3-26

(3)

B12-3-26

# Work Order ID 82146

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Item ID: D3778-3

Accept

**\*N900040100\***

Setup Start

**\*NS1\***

Revision ID: PRELIM

Stop

**\*NS2\***

Item Name: Bracket

Start Date: 3/23/12

Start Qty: 1.00

**\*1\***

Cust Item ID:

Required Date: 3/27/12

Req'd Qty: 1.00

**\*1\***

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start

**\*NR1\***

QC:

Date:

SPC (Y/N):

Date:

Stop

**\*NR2\***

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

120

QC8- Inspect parts - second check

0.00 - inspect to h3 PB1

**\*120\***

QC

Memo

0.00

Quality Control

130

NC BRAKE

0.00

**\*130\***

Brake NC

Memo

0.00

Brake NC

1-deburr

2-Bend as per Dwg D3778

140

QC5- Inspect part completeness to step on W/O

0.00 - inspect to h3 PB1

**\*140\***

QC

Memo

0.00

Quality Control

# Work Order ID 82146

**\*82146\***

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March-23-12 9:06:21 AM

Item ID: D3778-3 Accept **\*N900040100\*** Setup Start **\*NS1\***  
 Revision ID: PRELIM Stop **\*NS2\***  
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 Required Date: 3/27/12 Req'd Qty: 1.00 **\*1\*** Customer:  
 Reference:

Approvals: Process Plan: Date: Tooling: Date: Run Start **\*NR1\***  
 QC: Date: SPC (Y/N): Date: Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
150	Chemical Conversion Coat per QSI005 4.1	0.00							
<b>*150*</b>									
HandFinish	Memo	0.00							
Hand Finishing									
160	Black Sandtex(Ref:4.3.5.7) per QSI005 4.3	0.00							
<b>*160*</b>									
Powdercoat	Memo	0.00							
Powder Coating	START TIME: 9h25 9h55 FINISH TIME: 3201								
170	QC3- Inspect Part Finish	0.00							
<b>*170*</b>									
QC	Memo	0.00							
Quality Control									

3X M-12/03/28

3 & 20 12/03/28

m117 338

3 & M 12/03/28

Qc 21

~~MCS 12/03/30~~

12/03/30

# Picklist Print

March-23-12 9:06:21 AM

Page 1

Work Order ID: 82146

Parent Item: D3778-3

Parent Item Name: Bracket

Start Date: 3/23/12

Required Date: 3/27/12

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP REV:A NEW ISSUE 12-03-21 JLM VERIFIED BY:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M6061T6S.090 6061-T6 .090 Sheet		Purchased	No				sf	86.0000		0.1753684			

1.  
B12-3-26

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
MAT021	86	
109184	2	
111382	84	

111382

③

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**\*82146\***

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 Revision ID: PRELIM Stop **\*NS2\***  
 Item Name: Bracket  
 Start Date: 3/23/12 Start Qty: 1.00 **\*1\*** Cust Item ID:  
 Required Date: 3/27/12 Req'd Qty: 1.00 **\*1\*** Customer:

## Reference:

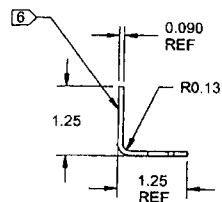
Approvals: Process Plan: Date: Tooling: Date: Run Start **\*NR1\***  
 QC: Date: SPC (Y/N): Date: Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
180	Identify as per dwg & Stock Location: <u>228</u>	0.00							
<b>*180*</b>									
Packaging	Memo	0.00							
Packaging	Reinspect to Rev B Drawn 8/12/30 (F3)								
190	QC21- Final Inspection - Work Order Release	0.00							
<b>*190*</b>									
QC	Memo	0.00							
Quality Control									

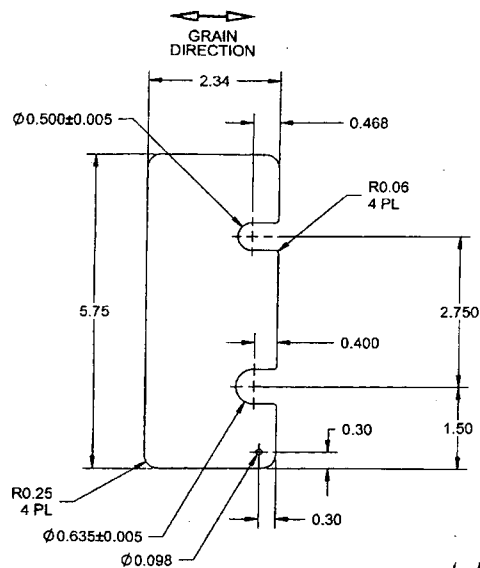
SHIP 1 (4/3/30) (3)

MCU 12/03/30

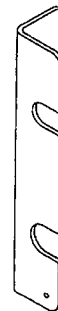
POSITIVE RECALL  
 EFFECTIVE 12/03/30 AUTH h  
 RELEASED h DATE 12/03/30  
 ECN 12-884



**D3778-1 BRACKET**



**D3778-1F FLAT PATTERN**



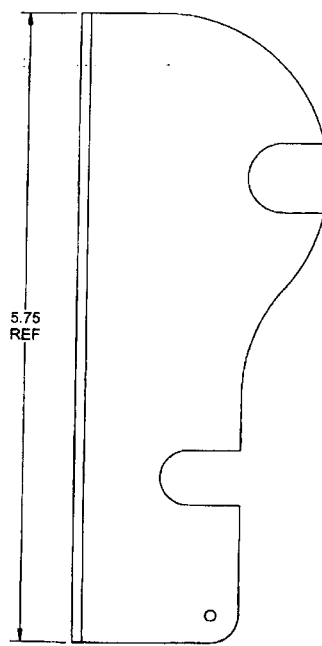
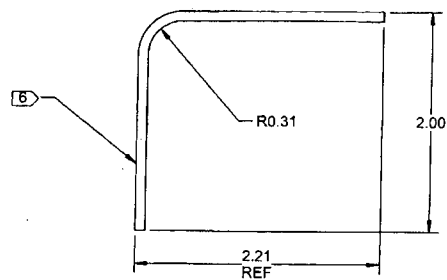
**NOTES:**

- 1) MATERIAL: 5052-H32 ALUMINUM SHEET, 0.090 THICK PER AMS-QQ-A-250/8 OR AMS 4016 (REF DART SPEC M5052H32.090)  
OR  
6061-T6/T62 ALUMINUM SHEET, 0.090 THICK PER AMS-QQ-A-250/11 OR AMS 4025/4027 (REF DART SPEC M6061T60.090)
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1  
POWDER COAT BLACK SANDTEX (4.3.5.7) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3778-X" AND B/N "BXXXXX"  
PER DART QSI 044 6.1 (FINE POINT MARKER)
- 7) WEIGHT -1: 0.11 lbs  
-3: 0.17 lbs

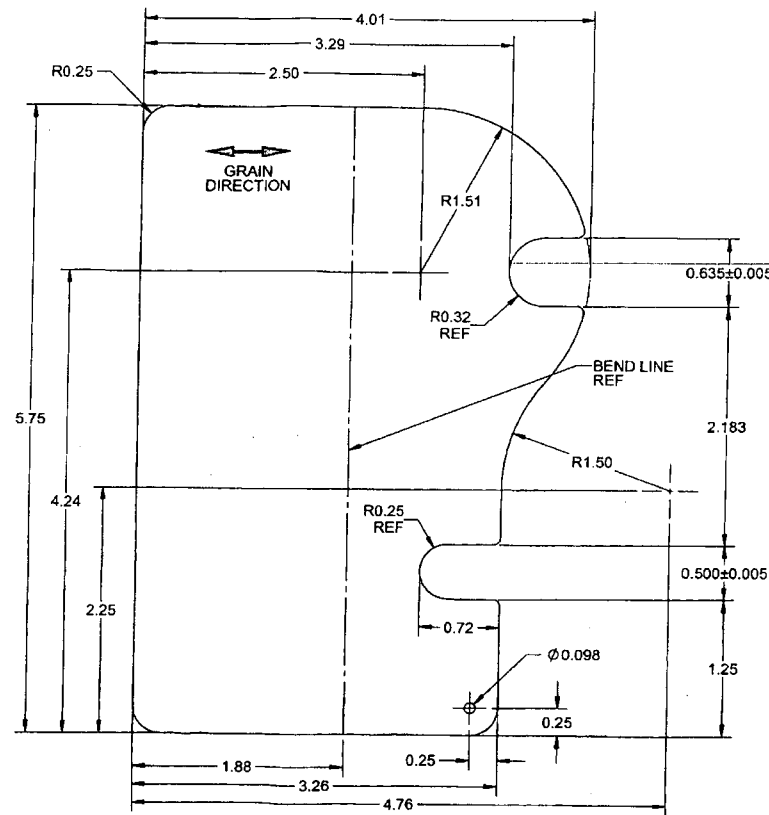
B	ADDED -3 (REF: PAR 12-163)	AJS	12.03.15
A	NEW ISSUE	PH	08.04.11
REV.	DESCRIPTION	BY	DATE
DESIGN	PH	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
DRAWN	AJS		
CHECKED		DRAWING NO.	REV. B
MFG. APPR.		D3778	SHEET 1 OF 2
APPROVED		TITLE	SCALE
DE APPR.		BRACKET	NTS
DATE	12.03.15	COPYRIGHT © 2008 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL. ANY REPRODUCTION OF THIS DOCUMENT WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

**RELEASED**  
R 2012-03-31

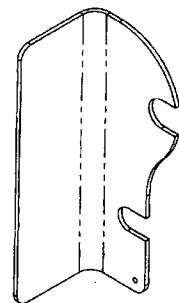
8 7 6 5 4 3 2 1



**D3778-3 BRACKET**




GRAIN  
DIRECTION

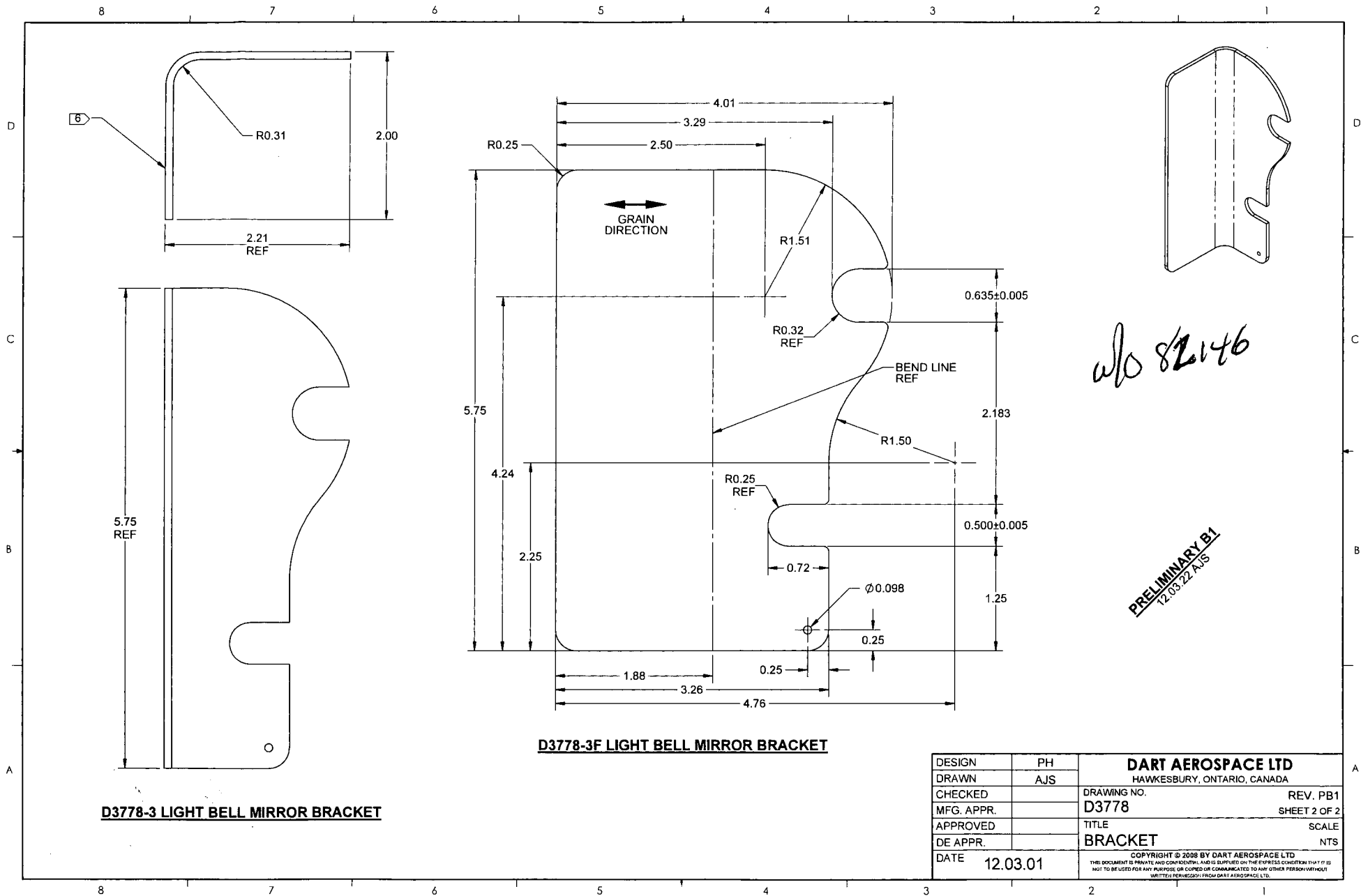


RELEASED  
2012-03-30

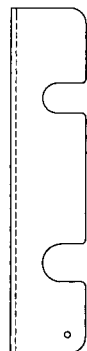
**D3778-3F BRACKET**  
(FLAT PATTERN)

DESIGN	PH	<b>DART AEROSPACE LTD</b>	
DRAWN	AJS	HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. B
MFG. APPR.		<b>D3778</b>	SHEET 2 OF 2
APPROVED		TITLE	SCALE
DE APPR.		<b>BRACKET</b>	NTS
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8 7 6 5 4 3 2 1







Technical drawing of a vertical pipe section. The drawing shows a vertical pipe with a central horizontal section. The grain direction is indicated by a double-headed arrow at the top, labeled "GRAIN DIRECTION". The drawing includes the following dimensions and features:

- Overall height: 5.75
- Overall width: 2.34
- Top flange thickness: 0.468
- Top flange radius: R0.06
- Top flange material: 4 PL
- Top flange diameter:  $\phi 0.500 \pm 0.005$
- Top flange width: 0.400
- Top flange height: 2.750
- Top flange radius: R0.25
- Top flange material: 4 PL
- Top flange diameter:  $\phi 0.635 \pm 0.005$
- Top flange width: 0.30
- Top flange height: 1.50
- Top flange radius: R0.098
- Top flange material: 4 PL
- Top flange diameter:  $\phi 0.098$
- Top flange width: 0.30
- Top flange height: 0.30

**PRELIMINARY B1**  
12.03.22 AJS

NOTES:

- 1) MATERIAL: 5052-H32 ALUMINUM SHEET, 0.090 THICK PER AMS-QQ-A-250/8 OR AMS 4016 (REF DART SPEC M5052H32.090)  
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- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART PIN "D3778-X" AND B/N "BXXXXX"  
PER DART QSI 044 6.1 (FINE POINT MARKER)
- 7) WEIGHT -1: 0.11 lbs  
-3: 0.17 lbs

PB1	PRELIMINARY (ADDED -3)	AJS	12.03.02
REV.		DESCRIPTION	BY DATE
DESIGN	PH	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA  DRAWING NO. <b>D3778</b>  TITLE <b>BRACKET</b>  COPYRIGHT © 2008 BY DART AEROSPACE LTD <small>THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESSED UNDERSTANDING THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT THE WRITTEN PERMISSION OF DART AEROSPACE LTD.</small>	
DRAWN	AJS		
CHECKED			REV. PB
MFG. APPR.			SHEET 1 OF
APPROVED			SCALE
DE APPR.			NT
DATE	12.03.01		



